

CRYPTOGRAPHIC SYSTEM AND METHOD FOR GEOLOCKING AND SECURING DIGITAL INFORMATION

ABSTRACT OF THE DISCLOSURE

A method and apparatus for controlling access to digital information utilizes a location identity attribute that defines a specific geographic location. The location identity attribute is associated with the digital information such that the digital information can be accessed only at the specific geographic location. The location identity attribute further includes a location value and a proximity value. The location value corresponds to a location of an intended recipient appliance of the digital information, and may be further defined in terms of latitude, longitude and altitude dimensions. The digital information is encrypted using a geolocking key based at least in part on the location identity attribute. The geolocking key is based on a shape parameter that is determined from the location identity attribute and is included with the encrypted digital information. The shape parameter describes a shape of a geographic area, but does not identify where the geographic area is located. The appliance that receives the encrypted digital information can generate the geolocking key to decrypt the digital information based on the received shape parameter and the appliance location. If the appliance location is not within the proximate area of the location identity attribute, the appliance will be unable to generate the geolocking key to decrypt the digital information.